03050103-030

(Twelvemile Creek/ Waxhaw Creek)

General Description

Watershed 03050103-030 (formerly 03050103-038) is located in Lancaster County and consists primarily of ***Twelvemile Creek, Waxhaw Creek,*** and their tributaries. The watershed occupies 30,093 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Appling-Vance-Cecil-Enon series. The erodibility of the soil (K) averages 0.32; the slope of the terrain averages 7%, with a range of 2-15%. Land use/land cover in the watershed includes: 71.5% forested land, 22.8% agricultural land, 4.3% scrub/shrub land, 0.8% water, 0.4% barren land, and 0.2% urban land.

The Twelvemile Creek watershed originates in North Carolina and drains into the Catawba River. Cow Branch and Tarkill Branch (Long Branch) flow into Sixmile Creek, which drains into Twelvemile Creek. Twelvemile Creek also accepts drainage from Rone Branch, Millstone Branch, and Todd Branch before entering the Catawba River. Waxhaw Creek accepts drainage from Causar Creek (Andrew Jackson State Park Lake) and Mill Branch (Foster Branch) flows into the Catawba River downstream of Twelvemile Creek. There are a total of 79.2 stream miles and several small lakes and ponds in this watershed (totaling 97.4 acres), all classified FW.

Water Quality

Station #	Type	Class	Description
CW-176	P	FW	SIXMILE CREEK AT S-29-54
CW-083	S	FW	TWELVEMILE CREEK AT S-29-55 0.3 MI NW OF VAN WYCK
CW-145	W	FW	WAXHAW CREEK AT S-29-29

Twelvemile Creek (CW-083) - Aquatic life uses are fully supported. A significant increasing trend in dissolved oxygen concentration and a significant decreasing trend in five-day biochemical oxygen demand suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions; however a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

Sixmile Creek (CW-176) - Aquatic life uses are not supported due to occurrences of zinc in excess of the aquatic life acute standards, including a very high concentration measured in 1994 and a high concentration measured in 1996. In addition, there was a very high concentration of copper measured in 1995, and significant increasing trends in five-day biochemical oxygen demand and total nitrogen concentrations. There is also a decreasing trend in pH. Recreational uses are not supported due to fecal coliform bacteria excursions.

Waxhaw Creek (CW-145) - Aquatic life uses are fully supported. Recreational uses are not supported due to fecal coliform bacteria excursions.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM	***NPDES#***
FACILITY NAME	***TYPE***
PERMITTED FLOW @ PIPE (MGD)	***LIMITATION (EL/WQL)***
COMMENT	
CAUSAR BRANCH	SC0041807
HEALTH SOUTH/CENTRAL CAROLINAS	MINOR DOMESTIC
PIPE #: 001 FLOW: 0.008	WATER QUALITY
WQL FOR BOD_5, NH3-N, TRC, DO	

Nonpoint Source Management Program

Mining Activities

MINING COMPANY	***PERMIT #***
MINE NAME	***MINERAL***
ASHE DIV., BORAL BRICKS, INC.	0003-57
MILLER PIT	SHALE
ASHE DIV., BORAL BRICKS, INC.	0004-57
ROBERT YODER PIT	SERICITE
ASHE DIV., BORAL BRICKS, INC.	0778-57
FAILE MINE	CLAY
PRESSLEY MINING COMPANY	0808-57
PRESSLEY MINE	CLAY
FRANK WILLIAMS COMPANY.	1109-57
FRANK WILLIAMS MINE	CLAY, TOPSOIL

Land Disposal Activities

Landfill Facilities

SOLID WASTE LANDFILL NAME	***PERMIT #***
FACILITY TYPE	***STATUS***
COMBS SHORT-TERM C&D LANDFILL	292903-1301
CONSTRUCTION	-------
FRANK LANDFILL	292900-1301
CONSTRUCTION	-------
HOOD SHORT TERM C&D LANDFILL	292902-1301
CONSTRUCTION	-------

Land Application Sites

LAND APPLICATION SYSTEM	***ND#***
FACILITY NAME	***TYPE***
OXYDATION POND	ND0067989
JINGLE JUNGLE INC.	DOMESTIC

Growth Potential

This area is adjacent to rapidly growing sections of the Charlotte urban area and has good access via the four-lane U.S. Hwy. 521. Although the entire watershed is served by public water, there is currently no sewer service available. The lack of sewer service will slow dense development in this area, but scattered residential development will likely continue. An extension of Dave Lyle Boulevard from Rock Hill has been proposed, which would cross the Catawba River and pass through this watershed. An additional potential for growth is the proposed Tri-County Regional sewer plant, which could be located on the Catawba River south of S.C. Hwy. 5. If built, this plant could provide sewer service to the area.

Watershed Protection and Restoration

Special Projects

NPS Assessment and TMDL for Phosphorus in the Catawba River Basin

SCDHEC has contracted with the University of South Carolina to quantify relationships between land use and water quality in the Catawba River Basin. The project will evaluate these relationships using the WARMF model, which will be used to develop a TMDL for total phosphorus in Fishing Creek Reservoir, Cedar Creek Reservoir, and Lake Wateree. The TMDL is being developed in cooperation with the North Carolina Division of Water Quality and will involve stakeholders in the basin. Additional information about the TMDL development process can be found in Appendix B.